that regardless of the treatment considered, very careful evaluation of the mechanisms will be required through the phase I, II and III clinical trials particularly because of the great variability of the natural history of the disease.

In a brief review it is impossible to handle and evaluate each chapter and each of the important statements. Therefore, I only point out some of those messages, which particularly caught my attention and which I think may be of general interest.

A noteworthy statement in the chapter on epidemiology is that the increase in incidence of the carcinoma of the prostate may be more apparent than real due to the more efficient diagnostics. This is supported by the fact that over the past 30 years there has been little change in mortality. The survival rate has improved, however, in which both earlier diagnosis and improved treatment play a role. Based on critical evaluation of the grading systems available at present, the need for a new approach in pathologic prognostication is stressed.

I have found the following statement particularly important: despite the advance in the fields of tumor markers and imaging techniques, routine annual rectal examination of at-risk patients will probably have a greater impact on prostatic cancer survival statistics than any other screening modality. At present, rectal examination seems to be superior even in judging local extension. I think the fact that spread through the lymphatic channels may occur even in clinically localized disease will also require more attention in the future.

The chapters dealing with the various treatment modalities are comprehensive, they try to be critical and objective. Instead of going into detailed evaluation of those chapters I think it is more useful to stress again that prostatic cancer is a heterogeneous disorder with varying biologic potential, which is correctly stated in almost each chapter of this outstanding book. Uniformity in classification and in clinical staging characterization is extremely important and especially critical in the interest of any further progress. Therefore, the statement made by the authors of the chapter dealing with the staging should always be kept in mind in a disease like prostatic cancer where the end results are so dependent upon case selection.

This outstanding, up-to-date book on prostatic cancer also points out the problems to be solved as well as delineating the possible new approaches

This book is a work of art on the topic of prostatic cancer which must be read by everyone who is dealing with prostatic cancer in any capacity; clinicians, pathologists, experimentalists, and epidemiologists can gain much out of reading it.

K. Lapis, Budapest

Felix Mitelman
Catalog of Chromosome Aberrations in Cancer; 3rd ed.
Liss, New York 1988
XXXIII + 1,146 pp.; US $ 165.00
ISBN 0-8451-4248-8

This [illegible] comprises 9,069 cases of neoplasms with abnormal karyo[illegible]ed by banding techniques until 1987. In the [illegible] gives information how this third edition has [illegible]tection mistakes, improvements in contents [illegible]w on data base of cancer cytogenetics, we find the list of 25 scientific journals from which the majority of the 2,156 references have been derived, furthermore, tabulation on the number of cases within the different disease entries and the sites of all solid tumors included in the Catalog. Following the chapter dealing with the use of Catalog, the author described all the chromosome changes published so far in human neoplastic disorders, from chromosome 1 till chromosome 22 and X and Y. In addition to the previous editions, references to molecular studies performed on cancer-associated chromosome aberrations are shown in tabular forms in a new section. Two new sections are dealing with karyotypes containing homogeneously staining regions and double minute chromosomes. This new voluminous book enables the reader to quickly and easily overview everything published on a specific type of chromosome abnormality, and is indispensable for all human cancer cytogeneticists.

I. Pályi, Budapest

N.E. Breslow, N. Day
Statistical Methods in Cancer Research, vol. II
The Design and Analysis of Cohort Studies
IARC Scientific Publications, No. 82
Int. Agency for Research on Cancer, Lyon 1988
XII + 406 pp.; £ 30.00
ISBN 92-832-1182-0

This book is a companion to the authors' earlier volume on case-control studies. Together, they become the authoritative work for statistical methods for design and analysis of cancer epidemiology studies.

The authors establish the theoretical and conceptual bases of classical and modern methods. They demonstrate that many seemingly 'black-box' procedures are natural generalizations of simpler standard ones. The methods are applied to well-described sets of data from studies which are substantive interest. The extensive use of real examples can help readers bridge the gap between statistical theory and epidemiologic data analysis.

The first chapter is of broad interest to cancer epidemiologists. The authors demonstrate the historical importance of cohort studies. They clearly enumerate the benefits and potential pitfalls of economical alternatives to cohort studies. Practical issues including criteria for membership in the cohort and exposure and case ascertainment are discussed. The authors enumerate potential sources of misleading inference in cohort studies such as measurement error, the healthy worker effect and confounding.

Subsequent chapters contain more quantitative material. Major topics covered in detail include standardization, person-year methods, use of the SMR and PMR, Poisson regression, Cox regression, risk modelling, use of internal and external comparisons, and statistical efficiency of designs. One particularly challenging chapter addresses the important problem of identifying *when* a risk factor affects risk. This chapter includes a balanced discussion of the usefulness of multistage carcinogenesis models in epidemiology.

The close connection between case-control and cohort studies is a major theme of this book. Case-control studies are featured in examples and in chapters on temporal effects and design considerations.

The authors emphasize practical techniques for assessment of statistical models. They describe only some of the specialized in-

teractive software needed to explore different model structures and to use tools such as residual and diagnostic plots.

The two books by Breslow and Day can function primarily as a reference. The inclusion of an index referring to both volumes is helpful in this regard. But, particularly because of the examples, more systematic study is required to receive the full benefits of this work. It can be difficult to regain the flow after some of the more technical sections; distinction between sections of general interest and those aimed primarily at research biostatisticians would be helpful. Nonetheless, the persistent reader, whether interested in routine or state-of-the-science methods in cancer epidemiology, will be amply rewarded.[1]

S. Wacholder, Bethesda, Md.

[1] The comments in this review do not necessarily reflect the position of the United States' Department of Health and Human Services.

G. Klein, S. Weinhouse (eds)
Advances in Cancer Research, vol. 49
Academic Press, London 1987
VIII + 417 pp.; US$ 75.00
ISBN 0-12-006649-1

The 49th volume of *Advances in Cancer Research* contains 10 chapters dealing with recent results in research on oncogenes, Epstein-Barr virus (EBV) and the immune system, cell markers in the study of human hematopoietic neoplasia, natural-killer-cell-mediated cytotoxicity, human tumor-associated antigens, tumor promotors, anticarcinogenic action of protease inhibitors and oral contraceptives.

The treatise starts with the description of the interaction of retroviral oncogenes with the differentiation program of myogenic cells. The myogenic differentiation and the properties of avian retroviral oncogenes (src, fps, ros, yes, erbB, sea, mil, erbA, myc, myb, ski, ets) as well as mechanisms involved in the block of differentiation are described. The next two chapters deal with the oncogenes fos and abl, including a complex characterization of both. Unfortunately, new and interesting results on the interaction between fos and the newly detected avian oncogene jun have not been taken into consideration. The treatise continues with a chapter assigned to the EBV receptor, cell activation by EBV, cellular immunity during acute EBV-induced infectious mononucleosis and chronic asymptomatic EBV infection. The next chapter concerns the use of cell markers in the study of human hematopoietic neoplasia. The usefulness of glucose-6-phosphate dehydrogenase and restriction fragment length polymorphisms as marker systems in lymphoproliferative and myeoloproliferative disorders as well as in marrow transplantations is presented. A further chapter of the treatise deals with new classes of tumor promotors (teleocidin, aplysiatoxin, palytoxin). A historical background of the discoveries of these tumor promotors and their in vitro and in vivo effects are given. The mechanisms of tumor promotion by TPA-type and non-TPA-type tumor promotors is described. In the chapter Anticarcinogenic Action of Protease Inhibitors, different kinds of protease inhibitors are introduced. Their action on the inhibition of neoplastic transformation, on selective DNA and RNA amplification and on the induction of poly(ADP-ribose) formation is shown. Summarized, this book contributes to interesting problems of cancer research. Numerous tables together with selected figures illustrate the treatise.

W. Uckert, Berlin-Buch